





# This is the 21st edition of your Funk's G-Hybrid Corn Data Notebook



Research Acres, near Bloomington, Illinois, is the central field laboratory for Funk's G-Hybrids and home of many discoveries in the history of hybrid corn. More than 40 years of continuous research here, and at dozens of other locations throughout corn-growing America, stand behind the superior performance of every Funk's G-Hybrid.

## Prove to yourself PLAN TO WEIGH AND COMPARE

(See next printed page)













## The Producers of Funk's G-Hybrids invite you to

### WEIGH AND COMPARE

#### the hybrids you plant

Recent agricultural college tests show as much as 30 bushels difference in hybrids supposedly adapted to the same area. A difference of even half this much can make your choice of hybrids one of the most important decisions of the year.

More and more corn growers now Weigh and Compare, one hybrid against

another. You should, too.

Plant the hybrids which you want to check side by side. Keep track of where you planted them. Then, at harvest time, use any of these simple methods:

- 1 Pick equal areas with your picker. Then weigh each load over a scale.
- 2 Or, use a simple, tripod-hung scale, in the field, to weigh hand-husked samples.
- 3 Or, use a special in-the-field wagon axle scale, with picker-husked, equal-area samples.

Be sure to test for moisture and shelling percentage. Note differences in grain quality. Note standability. Figure the yield. Then make up your mind which hybrid to plant.

# CORN PLANTS PER ACRE at various planting rates

Number of plants per acre affects yield. Too few plants on given fertility cuts yield below the maximum. Too many plants may result in spindly stalks, no ear or a very small ear. Fertility and available moisture should determine spacing. These tables show approximate number of corn plants per acre at various planting rates.

#### Hill Dropped 2 per Hill

Distance				
Between Rows 3 Ft. 2 In.	20,632	20 Inches 16,510 15,680	24 Inches 13,760 13,070	28 Inches 11,790 11,200
3 Ft. 4 In. 3 Ft. 6 In.	19,602 18,668	14,930	12,450	

#### Hill Dropped 3 per Hill

Distance	Spacing Between Hills				
Between Rows	16 Inches	20 Inches	24 Inches	28 Inches	
3 Ft. 2 In.	30,948	24,765	20,640	17,685	
3 Ft. 4 In.	29,403	23,520	19,605	16,800	
3 Ft. 6 In.	28,002	22,395	18,675	16,005	

#### Checked Corn

Distance Between Rows	2 Per Hill	3 Per Hill	4 Per Hill	5 Per Hill
3 Ft. 2 In. 3 Ft. 4 In.	8,690 7,840	13,030 11,760	17,380 15,680	21,720 19,600
3 Ft. 6 In.	7,110	10,670	14,220	17,780

#### **Drilled Corn**

Distance		Spacing in D	rill Row	
Between Rows	6 Inches	10 Inches	14 Inches	
3 Ft. 2 In. 3 Ft. 4 In.	27,510 26,130	16,510 15,680	11,790 11,200	9,170 8,710
3 Ft. 6 In.	24,900	14,930	10,670	8,300

## Number and Length of Rows in an Acre

This table will give you a fairly accurate and fast way to determine the number of acres of corn in a field or portion of a field by figuring the length of the rows and the distance between rows. For instance, if the rows are 40 inches apart and 160 rods long, then 4.9 rows make an acre.

Length of Row	Number of Rows to Make One Acre if Distance Between Rows Is:				
	36 in.	38 in.	40 in.	42 in.	
40 Rods	22.2	20.8	19.8	18.8	
50 Rods	17.6	16.6	15.8	15.0	
60 Rods	14.7	13.9	13.2	12.5	
70 Rods	12.6	11.9	11.3	10.7	
80 Rods	11.1	10.4	9.9	9.4	
90 Rods	9.8	9.3	8.8	8.3	
100 Rods	8.8	8.3	7.9	7.5	
110 Rods	8.1	7.6	7.1	6.8	
120 Rods	7.3	6.9	6.5	6.2	
130 Rods	6.6	6.4	6.0	5.8	
140 Rods	6.2	5.9	5.6	5.3	
150 Rods	5.8	5.5	5.3	5.0	
160 Rods	5.5	5.2	4.9	4.7	

# HOW TO CORRECT EAR CORN YIELD FOR SHELLING PERCENTAGE

To determine the number of bushels of shelled corn represented by a given number of bushels of ear corn, use the following method: Shell 20 pounds of ear corn and weight the shelled corn. With this weight of shelled corn eart to the table below. The percentage figure opposite the weight of shelled sample is then multiplied by the number of bushels of ear corn. This will give the num-

ber of bushels to be subtracted from or added to the original ear own bushelage. For example: 100 bushels of ear corn at 70 pounds which give 14 pounds of shelled orn from a 20-pound ear sample indicates that 12.5 percent is to be deducted. On the basis of 100 bushels, this would men that you actually had only 87.5 bushels of shelled corn.

Veight of	Percent	Weight of	Percent	Weight of	Percent	Weight of	Percent	
Shelled	to	Shelled	to	Shelled	to	Shelled	to	
Sample	Subtract	Sample	Subtract	Sample	Add	Sample	Add	
14.0	12.5	15.0	6.2	16.0	0.0	17.0	6.3	
14.1	11.9	15.1	5.6	16.1	9.0	17.1	6.9	
14.2	11.2	15.2	5.0	16.2	1.2	17.2	7.5	
14.3	10.5	15.3	4.4	16.3	1.9	17.3	8.1	
14.4	10.0	15.4	3.7	16.4	2.5	17.4	00.7	
14.5	9.4	15.5	3.1	16.5	3.1	17.5	9.4	
14.6	2.0	15.6	2.5	16.6	3.7	17.6	10.0	
14.7	8.1	15.7	1.9	16.7	4.4	17.7	10.5	
14.8	7.5	15.8	1.2	16.8	5.0	17.8	11.2	
14.9	6.9	15.9	9.0	16.9	5.6	17.9	11.9	

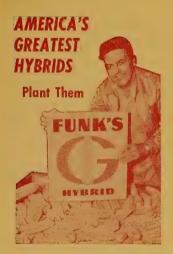
# How to Compute Capacity of Corn Cribs

The following formulas give answers in bushels of husked ear corn the crib will hold. For shelled corn, double number of bushels of ear corn and correct for moisture. For unhusked ear corn (72 lbs. per bu.), take % of figure for husked ear corn; unhusked corn varies greatly.

Square or Rectangular Cribs — Multiply the length by the width by the depth of grain (all in feet). Multiply this sum by 2 and divide by 5. The result is bushels of husked ear corn at 70 lbs. per bu. Correct for shelling percentage and moisture as directed on preceding pages.

Round Cribs — Multiply the diameter (distance across center) by the diameter. Multiply this sum by the depth (all in feet). Multiply the sum by .315. The result is bushels at 70 lbs. per bu. Correct for moisture and shelling percentages.

Piles of Corn — When heaped in the form of a cone, multiply the diameter (distance across the center) by the diameter. Multiply this sum by the depth of the pile at its greatest depth (all in feet). Multiply this sum by .105. The result is bushels at 70 pounds per bushel. Correct for moisture and shelling percentage.



Most widely used G-Hybrids shown in heavy type in approximate order of maturity — earliest first

G-2	G-20	G-72	G-512W
G-40A	G-21A	G-75A	G-704
G-188 /	G-26	G-77A	G-706
G-8A	G-32	G-76	G-779W
G-35	G-23	G-50	G-711
G-6E	G-30	G-44	G-711B
G-35A	G-24A	G-60A	G-711A
G-11A	G-30A	G-93	G-711AA
G-36	G-100HO	G-95A	G-710AA
G-102HO	G-38A	G-97A	G-720
G-18	G-71	G-91	G-730
G-176	G-29	G-96	G-785W
G-10	G-16A	G-144	G-740
G-6	G-101HO	G-134	

### THESE ORGANIZATIONS PRODUCE AND DISTRIBUTE FUNK'S G-HYBRIDS

FUNK BROS. SEED CO	Bloomington, Illinois
FUNK BROS. SEED CO	Belle Plaine, Iowa
AG-LAB PRODUCTS, INC	Columbus, Ohio
CLARENCE AKIN & SONS	St. Francisville, Illinois
COLUMBIANA SEED CO	
FRANK S. GARWOOD & SONS	Stonington, Illinois
GOLDEN SEED CO	
JAMES GRANT & SON SEED CO.,	The second secon
A. H. HOFFMAN SEEDS, INC	
LOUISIANA SEED CO., INC	· ·
McKEIGHAN SEED CO	
	DECIMACÃES DE MILHO DOATE

PETERSON-BIDDICK CO	Wadena, Minnesota
ROB-SEE-CO	Waterloo, Nebraska
SHISSLER SEED CO	Elmwood, Illinois
SMITH SEED CO	Tolono, Newman, Illinois
SOMMER BROS. SEED CO	Pekin, Illinois
SWANSON SEED FARMS	Galesburg, Illinois
THORP SEED CO	Clinton, Illinois
WISCONSIN SEED CO	Spring Green, Wisconsin
COMPAGNIA IBRIDI MAIS	Milano, Italy
MAICES HIBRIDOS Y SEMILLAS S.A	
PROMAHIS S.A	Buenos Aires, Argenting

REFINAÇÕES DE MILHO, BRAZIL......São Paulo, Brazil



#### CAPACITY OF SILOS

Depth		D	iameter	Silo in F	eet	
Silage	10	12	14	16	18	20
Feet	Tons	Tons	Tons	Tons	Tons	Tons
2	2.64	3.82	5.18	6.78	8.56	10.58
4 6	5.28	7.64	10.36	13.56	17.12	21.16
6	7.94	11.44	15.56	20.32	25.68	31.7
8	10.80	15.56	21.19	27.66	34.95	43.2
10	13.74	19.79	26.95	35.18	44.45	54.98
12	16.77	24.15	32.89	42.93	54.25	67.07
14	19.90	28.65	39.02	50.93	64.36	79.57
16	23.05	33.21	45.21	59.01	74.57	92.18
18	26.22	33.21 37.76	51.42	67.11	84.81	104.84
20	29.45	42.41	57.75	75.38	95.25	117.75
22	32.65	47.02	64.03	83.58	105.61	130.56
24	35.90	51.70	70.40	91.90	116.13	143.56
26	39.20	56.46	76.87	100.34	126.80	156.75
28	42.55	61.28	83.43	108.90	137.62	170.13
30	45.94	66.08	90.09	117.59	148.59	183.69
32	49.32	70.94	96.71	126.21	159.53	196.19
34	52.70	75.80	103.33	134.83	170.47	208.69
36	56.08	80.66	109.95	143.45	181.41	221,19
38	59.46	85.52	116.57	152.07	192.35	233.69
40	62.84	90.38	123.19	160.69	203.29	246.19
42	66.22	95.24	129.81	169.31	214.23	258.69
44	69.60	100.10	136.43	177.93	225.17	271.19
46	72.98	104.96	143.05	186.55	236.11	283.69
48	76.36	109.82	149.67	195.17	247.05	296.19
50	79.74	114.68	156.29	203.79	257.99	308.69
52	83.12	119.54	162.91	212.41	268.93	321.19
54	86.50	124.40	169.53	221.03	279.87	333.69
56	89.88	129.26	176.15	229.65	290.81	346.19
58	93.26	134.12	182.77	238.27	301.75	358.69
60	96.64	138.98	189.39	246.89	312.69	371.19
62	100.02	143.84	196.01	255.51	323.63	383.69
64	103.40	148.70	202.63	264.13	334.57	399.19
66	106.78	153.56	209.25	272.75	345.51	408.69

Capacities are in tons after one month or more settling. In figuring acreage to fill silo use depth after settling rather than full depth of silo. For G-Hybrids used for silage one region North of maturity zone and ensiled in dough stage add 10% to capacity given; when unusually dry deduct 10%, Add 10% for G-Hybrids ensiled at same maturity as open-pollinated to allow for extra weight of grain.

#### CAPACITY OF TRENCH SILOS

Calculate volume of silage by usual width times length times depth of silage. This gives you cubic feet of silage you have. Multiply this times 36, the average weight of a cubic foot of corn silage, which gives you pounds of silage in the silo. If silage is on the dry side, subtract 10%; if wet, add 10%.

## **Bushel Weights of Common** Commodities (In Pounds)

(Approximate: may vary by states)

GRAINS		FRUITS, VEGETABLES	
Corn (shelled)	56	Apples	48
Corn (ear)	70	Peaches	48
Wheat	60	Pears	50
Soybeans	60	Beans (dried)	60
Oats	32	Beets	55
Barley	48	Cabbage	52
Rye	56	Carrots	50
Sorghum	50	Cucumbers	48
		Onions	57
GRASSES		Peas (dried)	60
Bluegrass ·	14		25
Brome grass	14	Peppers Potatoes	60
Redtop (unhulled)	14		55
Rye grass	25	Sweet potatoes Tomatoes	53
Timothy	45		55
Meadow fescue	14	Turnips	00
Bermuda grass	40		
Sudan grass	40	MISCELLANEOUS	
Orchard grass	14	Alfalfa	60
		Rape (dwarf e'x)	50
CLOVERS		Vetch (hairy)	60
Red	60	Flaxseed	56
Ladino	60	Hemp seed	44
Alsike	60	Buckwheat	48
Crimson	60	Bran	20
Sweet	60	Cornmeal	50
White Dutch	60	Cottonseed	33
Mammoth	60	Cottonseed meal	48

## Weights of Other Common Units

Cotton: Bale (compressed to 15 lbs. per sq. ft. 54x46x27 in.)—480 lbs.
Hay: Bale—for market, the standard weight is 125 lbs. but bales are accepted down to 85 lbs.
Milk: One gallon weighs 8.6 lbs.; 46½ qts. make 100 lbs. Cream, 1 gal. weighs 8.4 lbs.
Gasoline: One barrel (55 gals.) weighs 363 lbs.

## U.S. CORN CROP IN 1958

(From	U.S.D.A. Kepi	ort—Decembe	er 17, 19	958)
	Bushels	Total	Yield	Est. % of
STATES	Produced	Acreage	Per	Hybrids
	in 1958	Harvested	Acre	1958
Iowa				
Illinois	. 598,920,00	0 10,218,000	65.5	100.0
Minnesota	310,440,00	0 8,680,000	69.0	100.0
Nebraska	312,448,00	0 5,733,000	54.5	99.0
Indiana		0 5,434,000	51.5	96.5
Indiana	. 277,389,000	0 4,403,000	63.0	99.5
Ohio	. 202,560,000	3,376,000	60.0	99.5
Missouri	. 180,712,000	3,227,000	56.0	97.5
Wisconsin	. 140,962,000	J 2,089,000	52.5	98.5
Michigan	. 106,344,000	1,899,000	56.0	99.0
So. Dakota	. 105,192,000	3,896,000	27.0	89.5
Georgia	. 86,752,000	2,711,000	32.0	75.0
Pennsylvania	. 82,202,000	1.255.000	65.5	95.0
No. Carolina	82.192.000	1.868.000	44.0	79.0
Kentucky	75.803.000	1,547,000	49.0	94.5
Kansas	73 122 000	1,741,000	42.0	93.0
Alabama	. 66,848,000	2.089.000	32.0	80.5
Tennessee	. 59.748.000	1,532,000	39.0	81.0
Mississippi	44,469,000	1,458,000	30.5	57.5
Texas	42,973,000	1,754,000	24.5	85.0
Virginia	40,969,000	773,000	52.0	01.0
New York	33,400,000		53.0 50.0	91.0 92.0
So. Carolina.	28,954,000	934,000	31.0	92.0
Maryland	27,776,000	448,000	01.0	66.0
Colorado	26,471,000	440,000 514,000	62.0	97.5 75.5
No. Dakota	25,068,000	514,000	51.5	75.5
California	17,374,000	1,355,000	18.5	69.0
Louisiana	15,960,000	238,000	73.0	98.5
Florida	10,900,000	570,000	28.0	61.5
Arkansas	14,924,000	574,000	26.0	89.5
New Jersey.	14,688,000		32.0	80.5
Oklahoma	10,608,000	156,000	68.0	99.0
Del	9,000,000	300,000	30.0	77.5
Delaware	8,580,000	132,000	65.0	99.0
W. Virginia	8,305,000		55.0	85.0
Idaho	4,216,000	62,000	68.0	88.0
Washington	3,990,000	57,000	70.0	93.5
Montana	3,168,000	176,000	18.0	38.0
Oregon	3,150,000	45,000	70.0	98.0
Vermont	3,120,000	60,000	52.0	98.0
Utah	2,668,000	46,000	58.0	82.5
Connecticut	2,120,000	40,000	53.0	98.0
Wyoming	1,830,000	61,000	30.0	49.5
Massachusetts	1,620,000	30,000	54.0	08 0
New Mexico	1 457 000	47,000	31.0	42.0 30.0
Arizona N. Hampshire	1,170,000	36,000	32.5	30.0
N. Hampshire	539,000	11,000	49.0	98.0
Maine	451.000	11,000	41.0	91.0
		6,000	47.0	97.0
Nevada	220,000	4.000	55.0	70.0
United States.				
		73,470,000	51.7	92.5
Ontario, Can	29,610,000	487,000	60.8	95.0

U.S.D.A. Grade Requirements for Shelled Yellow, White or Mixed Corn

Maximum limits of	Gracked corn and foreign material         Total damaged damaged material         Heat damaged kernels	
R	p	14.0% 15.5% 20.0% 23.0%
	test weight per bushel	56 lb. 52 lb. 49 lb.
Grade No.		-00 to 4 to

Sample grade shall include corn of the class Yellow Corn or White Corn, or Mixed Corn, which does not come within the requirements of any of the grades from No. 1 to No. 5, or hot; or which has any commercially objectionable foreign odor; or which is otherwise inclusive; or which contains stones and/or cinders; or which is musty, or sour, or heating, of distinctly low quality.

# PLANT NUTRIENTS REQUIRED BY THE CORN CROP

For continued big crops of corn, we must replace at least part of the plant nutrients removed by the crop. Fertility reserves in the soil are slowly being liberated and can supply part of the needs of the growing crop, but some replacements are needed to maintain good soils in a high state of fertility. The following table emphasizes our tremendous assignment in maintaining fertility balances. Amounts of nitrogen, phosphorus (phosphoric acid P<sub>2</sub>O<sub>5</sub>) and potassium (potash K<sub>2</sub>O) needed by the crop have been calculated from many analyses.

## Requirements to Produce a 100 Bushel Corn Crop

	Pounds Required			
CROP UNITS	Nitrogen	Phosphoric Acid P <sub>2</sub> O <sub>5</sub>	Potash K <sub>2</sub> O	
100 bu. grain	95	38	25	
3 tons stover	57	18	82	
TOTAL	152	56	107	

## POUNDS OF PLANT FOODS REMOVED FROM SOIL BY CROPS

CROP	Acre	Nitrogen (N)	Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )	Potash (K2O)
GRAIN CROPS				
Barley (grain)	30 bu.	27	12	12
Barley (straw)	0.8 tons	9	3	19
Corn	100 bu.	152	56	107
Cowpeas (grain)	15 bu.	34	9	13
Oats (grain)	50 bu.	32	13	9
Oats (straw)	1 ton	12	4	30
Rye (grain)	30 bu.	32	12	10
Sorghum	60 bu.	190	70	140
Soybeans (grain)	20 bu.	70	16	30
Wheat (grain)	25 bu.	28	13	8
Wheat (straw)	1 ton	10	3	15
HAY CROPS				
Alfalfa Hay	4 tons	180	43	178
Bluegrass Hay	1 ton	27	11	42
Clover Hay	2 tons	82	16	65
Cowpea Hay	2 tons	100	20	70
Soybean Hay	2 tons	102	27	44
Timothy Hay	1.5 tons	30	9	41
OTHER CROPS				
Cotton (lint and				
seed)	1500 lbs.	40	16	16
Cotton (stalks,				
leaves and burs)	2800 lbs.	35	10	38
Peanuts (nuts)	2000 lbs.	65	15	20
Peanuts (vines)	2 tons	80	10	80
Sugar Beets (roots)	15 tons	76	23	60
Tobacco (leaves)	1000 lbs.	44	5	58
Tobacco (stalks)	450 lbs.	15	3	20

Funk Research Produces G-Hybrids Adapted to Your Needs

# WHAT FUNK'S-G RESEARCH MEANS TO EVERY CORN RAISER

The discovery of hybrid corn was such a giant step forward that most of us still harbor a feeling that further improvement of corn is bound to be very slow indeed. Actually, just the opposite is true.

Today, studies and experiments going on in the Funk's-G Laboratories and Experiment Fields are improving G-Hybrids at a faster rate than ever before. Resistance to heat, drouth and disease in G-Hybrids may save your crop some years. Increasing insect resistance in G-Hybrids may, at times, make chemical insect control unnecessary. Better standing G-Hybrids can speed up your harvest, make it safer. Faster drying G-Hybrids can mean earlier harvest. Higher yields and grain quality in G-Hybrids will mean additional income.

Funk's-G research is affecting you in these and many other ways. You can be sure that the nationwide network of Funk's-G Research Fields and Laboratories, staffed by the most capable hybrid corn research specialists in the world, will continue to produce ever better "America's Greatest Hybrids."





















#### CALENDAR FOR 1959

JULY	AUGUST	SEPTEMBER
SMTWTFS	SMTWTFS	SMTWTFS
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	·- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 20 27 28 29 30 · · ·
OCTOBER SMTWTFS	NOVEMBER S M T W T F S	DECEMBER

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 10 17 24 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 ----16

#### CALENDAR FOR 1960 JANUARY FEBRUARY MARCH MTWT 6 7 8 9 10 11 12 13 14 15 16 17 18 19

S

3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 APRIL MTWT 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 14 25 26 27 28 29 30

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

OCTOBER MTWTF

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

JANUARY

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 ----

MAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 -----

-- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 -- --

NOVEMBER 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 -- -- 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

18 19 20 21 22 23 24 25 26 27 28 29 30 --DECEMBER 10

MARCH

27 28 29 30 31

5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 -- -

SEPTEMBER

4 5 6 7 8 9 10 11 12 13 14 15 16 17

#### CALENDAR FOR 1961 FEBRUARY

MTW 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 · · · · · · 12 13 14 15 16 17 18 19 20 21 22 23 32 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 -----23 24 25 30 31 --27 28 29 APRIL JUNE MTWT 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 --10 11 17 18 24 25 14 15 16 21 22 23 28 29 30



# Plant the Corn

that made

AN EXTRA LOAD

from each bushel planted

LIBRARY

RECEIVED

\* FEB 1 81960 \*

U. S. Department of Agriculture